

FIG. 1

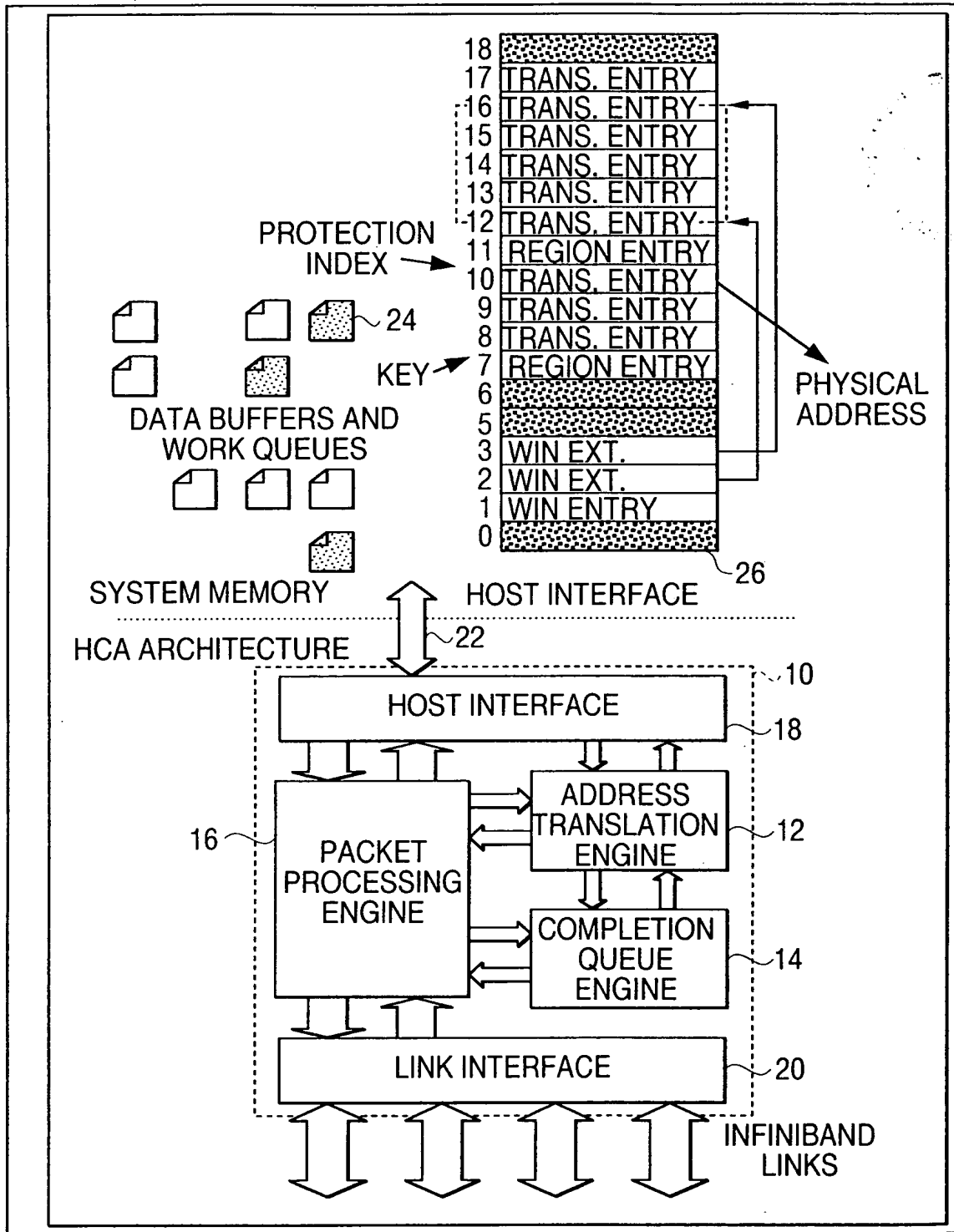


FIG. 2

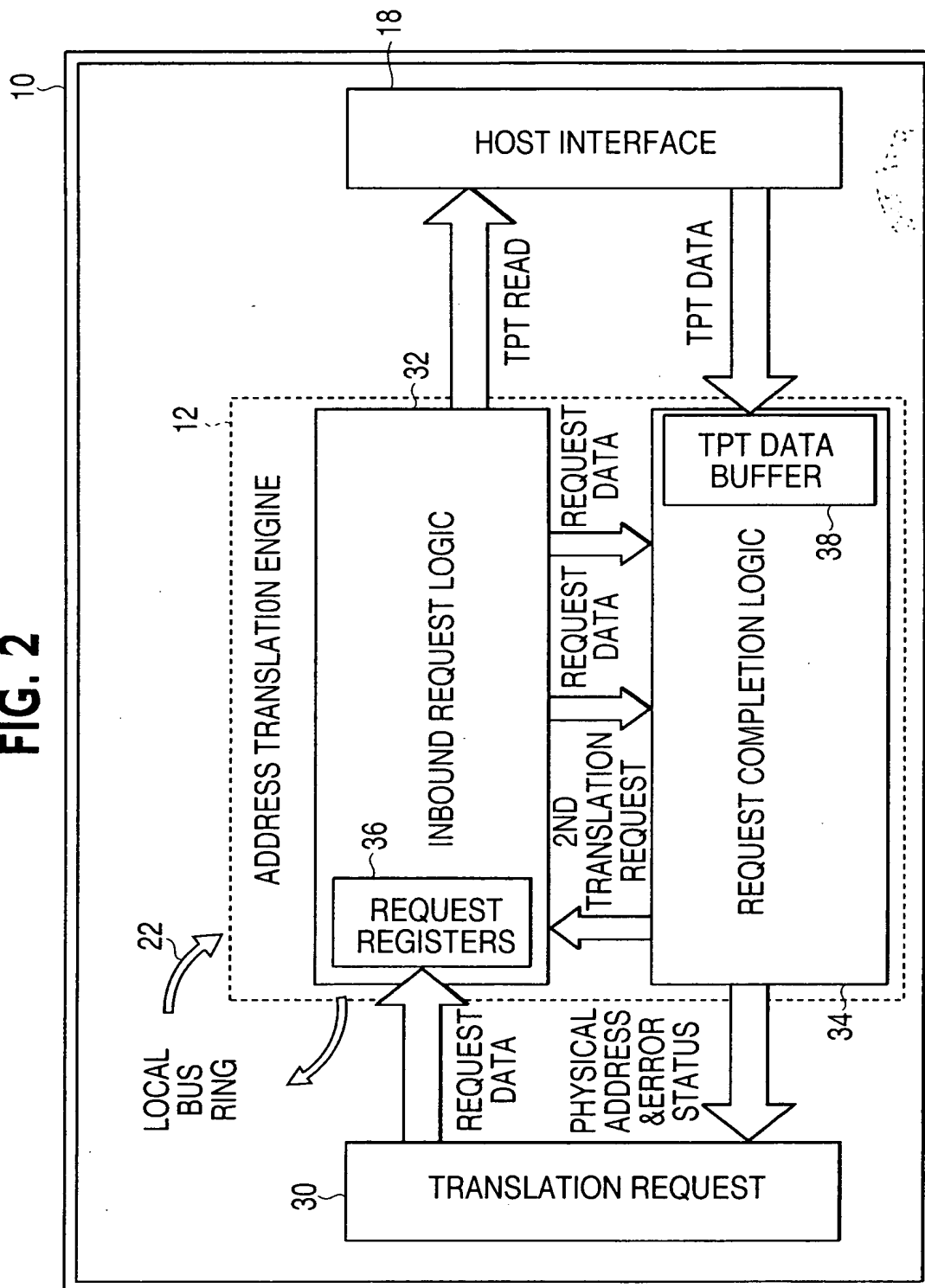


FIG. 3

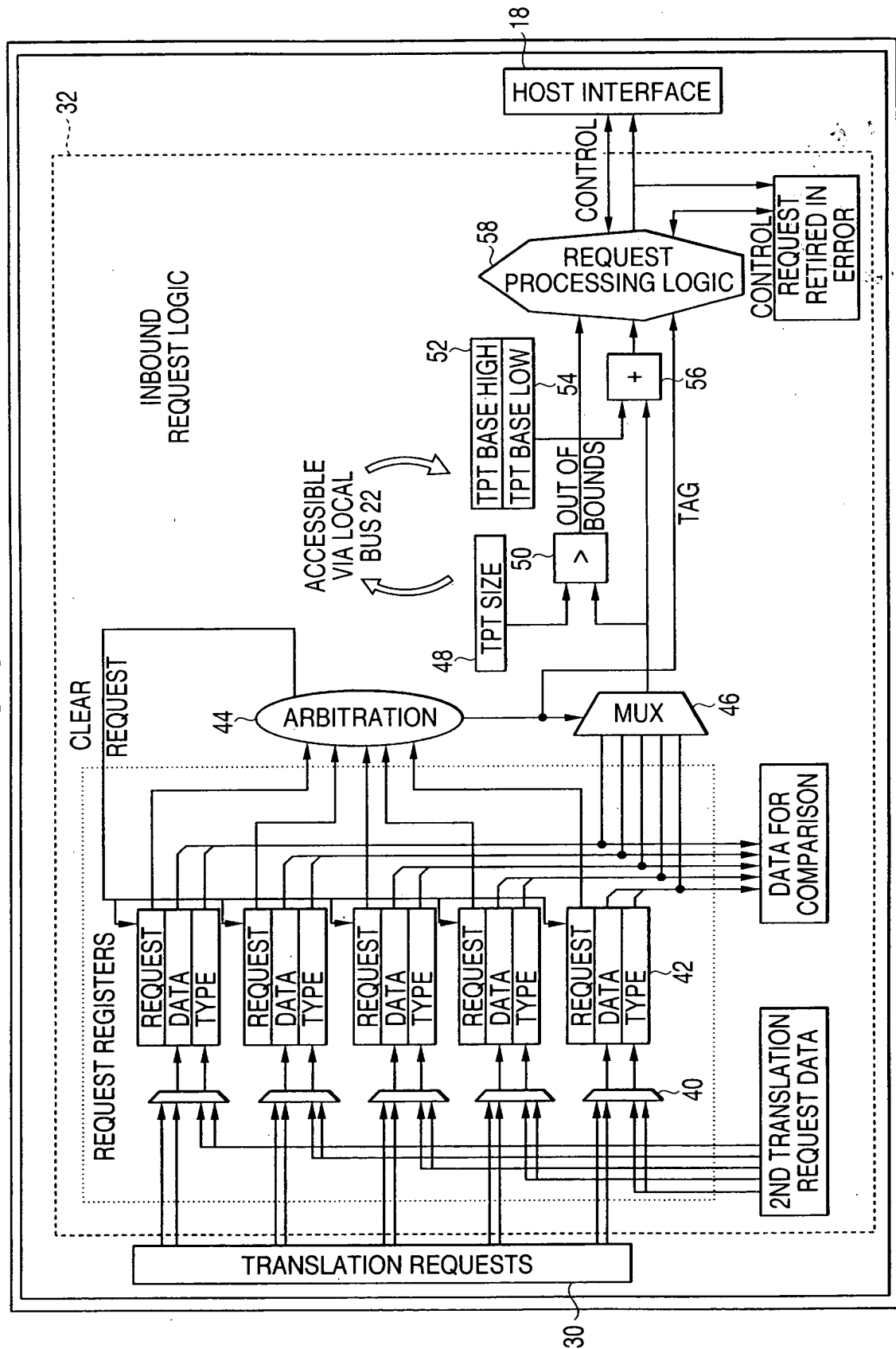


FIG. 4

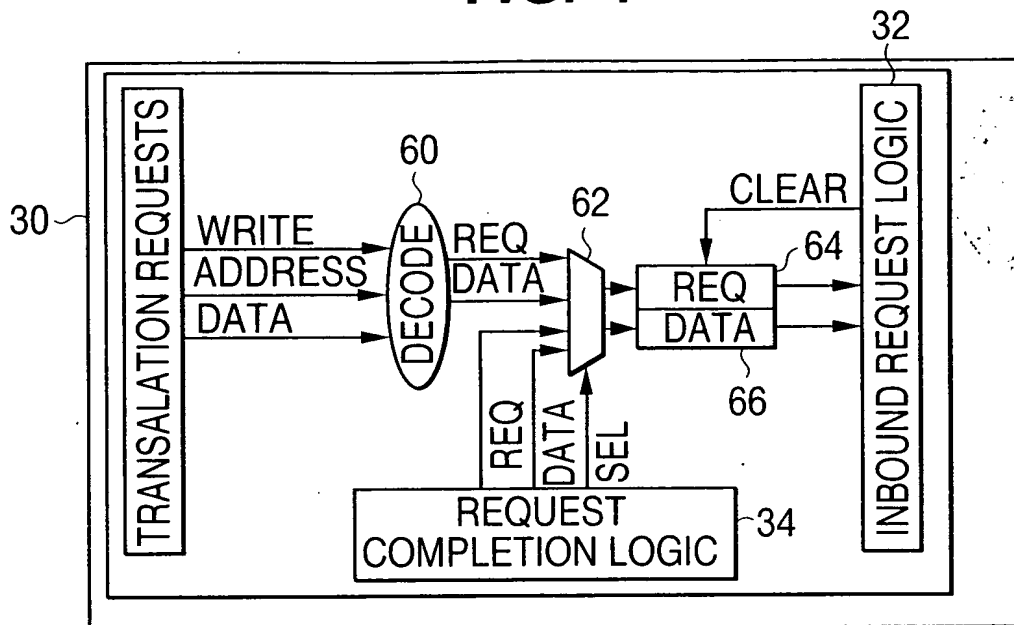
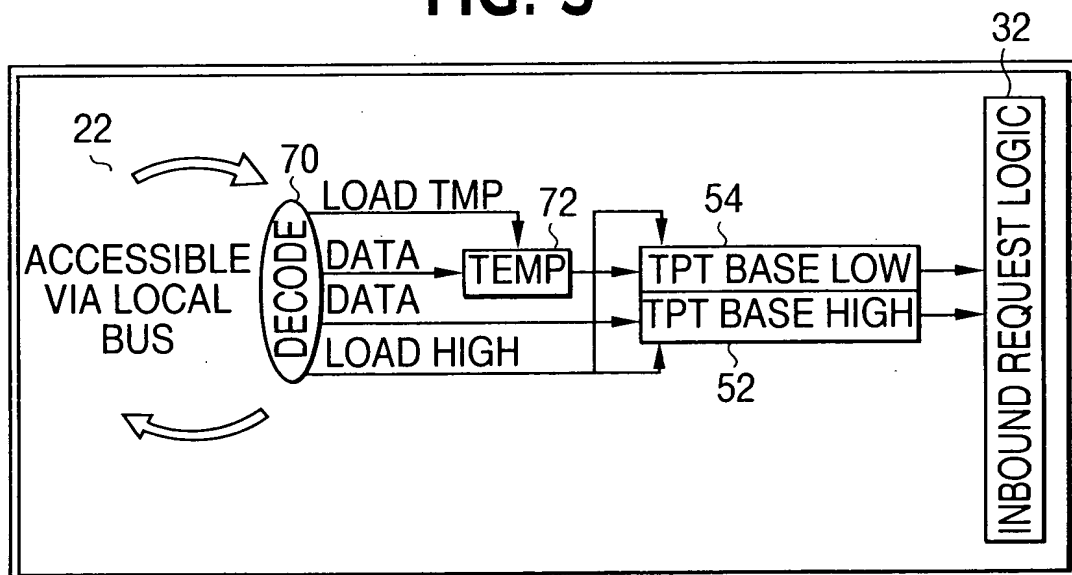


FIG. 5



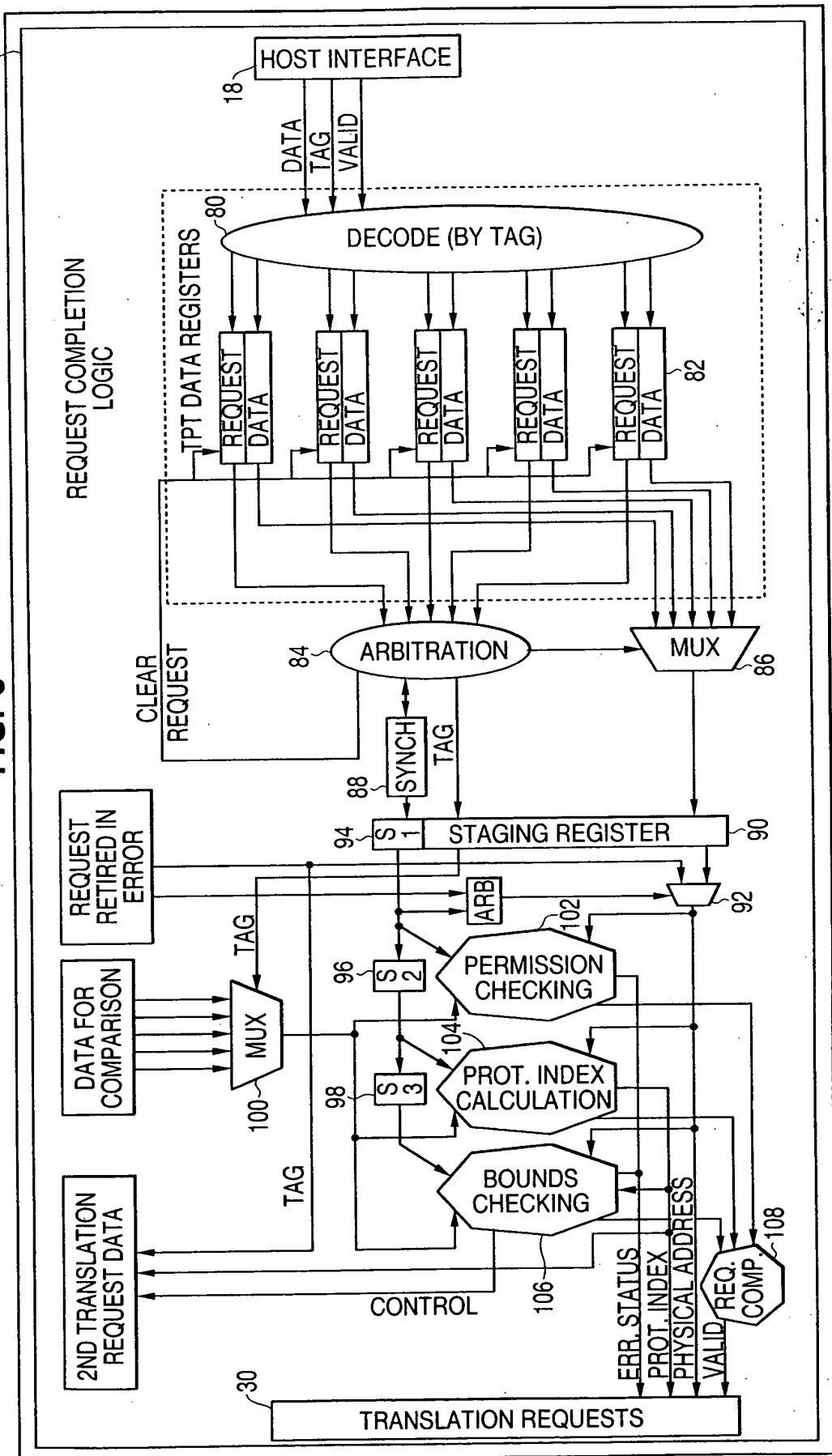
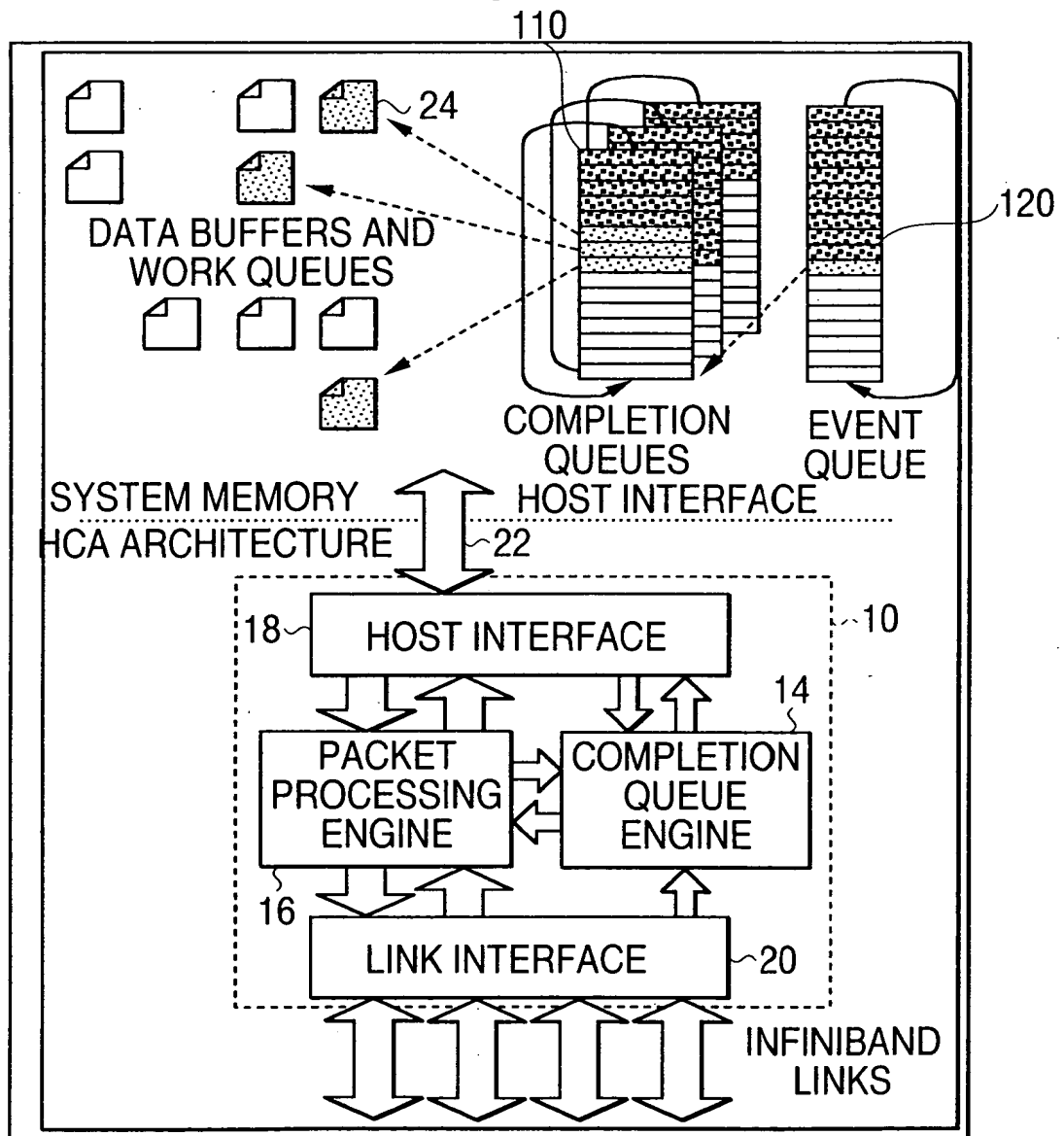


FIG. 7



The diagram illustrates a completion queue engine (14) and its connections to external components. The engine (14) is enclosed in a dashed box and contains the following internal components:

- LOCAL BUS REGISTERS (130):** Connected to the LOCAL BUS RING (22) via a curved arrow. It has bidirectional connections with the EQ WORK REGISTERS (136) and the CQ WORK REGISTERS (138).
- EQ WORK REGISTERS (136):** Connected to the LOCAL BUS REGISTERS (130) and the FINITE STATE MACHINE (132).
- CQ WORK REGISTERS (138):** Connected to the LOCAL BUS REGISTERS (130) and the FINITE STATE MACHINE (132).
- CQ CONTEXT MEMORY (134):** Connected to the CQ WORK REGISTERS (138) and the FINITE STATE MACHINE (132).
- FINITE STATE MACHINE (132):** The central control unit of the engine, managing data flow between internal registers/memory and external interfaces.

External components and their interfaces with the engine (14) are shown outside the dashed box:

- LOCAL BUS RING (22):** The system's communication bus, connected to the LOCAL BUS REGISTERS (130).
- ADDRESS TRANSLATIONS (12):** A block that provides address translation services. It has bidirectional connections with the FINITE STATE MACHINE (132) labeled "ADDRESS TRANSLATIONS" (132) and a unidirectional connection to the engine labeled "INBOUND WRITE REQUESTS" (18).
- HOST INTERFACE (18):** Manages data flow between the host and the engine. It sends "INBOUND WRITE REQUESTS" (18) to the engine and receives "DONE/ERROR STATUS" (16) from it.
- PACKET PROCESSING ENGINE (16):** Processes packets and sends "CQ/EQ REQUESTS" (16) to the engine.
- LINK INTERFACE (20):** Manages data flow between the link and the engine. It sends "PORT EVENTS" (20) to the engine.

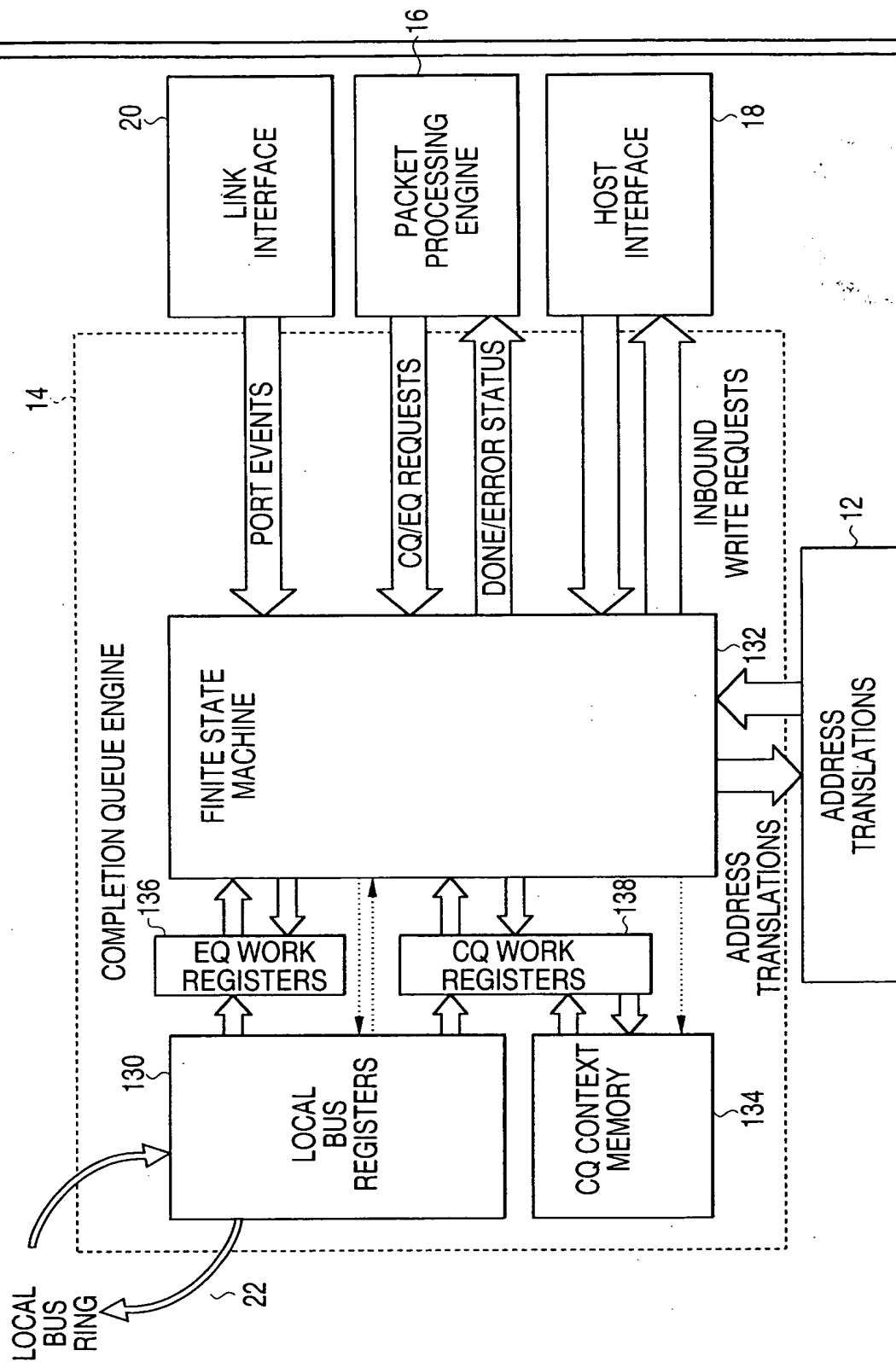


FIG. 9

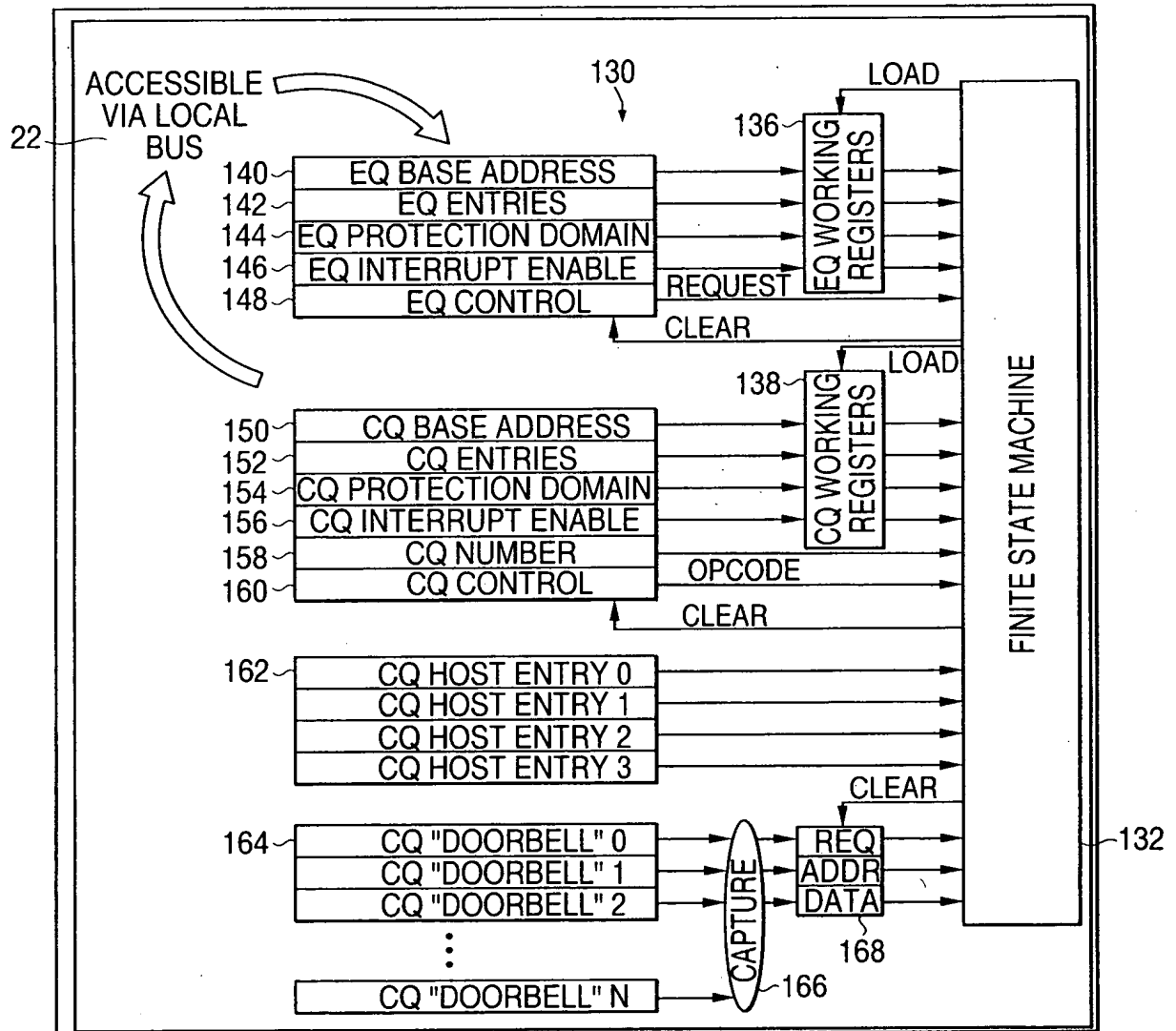


FIG. 10

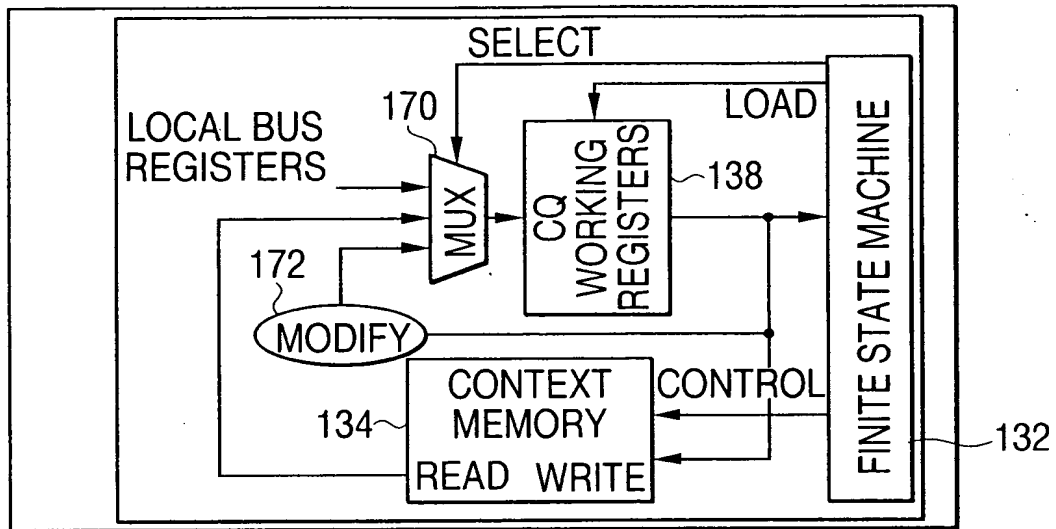


FIG. 11

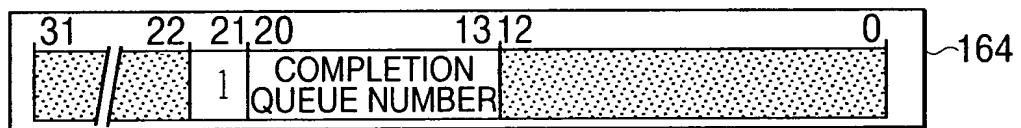


FIG. 12

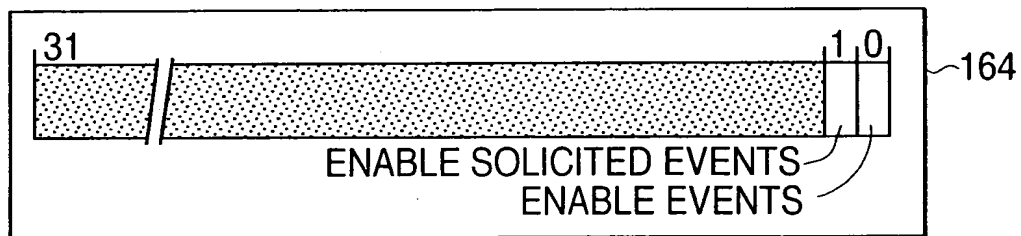


FIG. 13

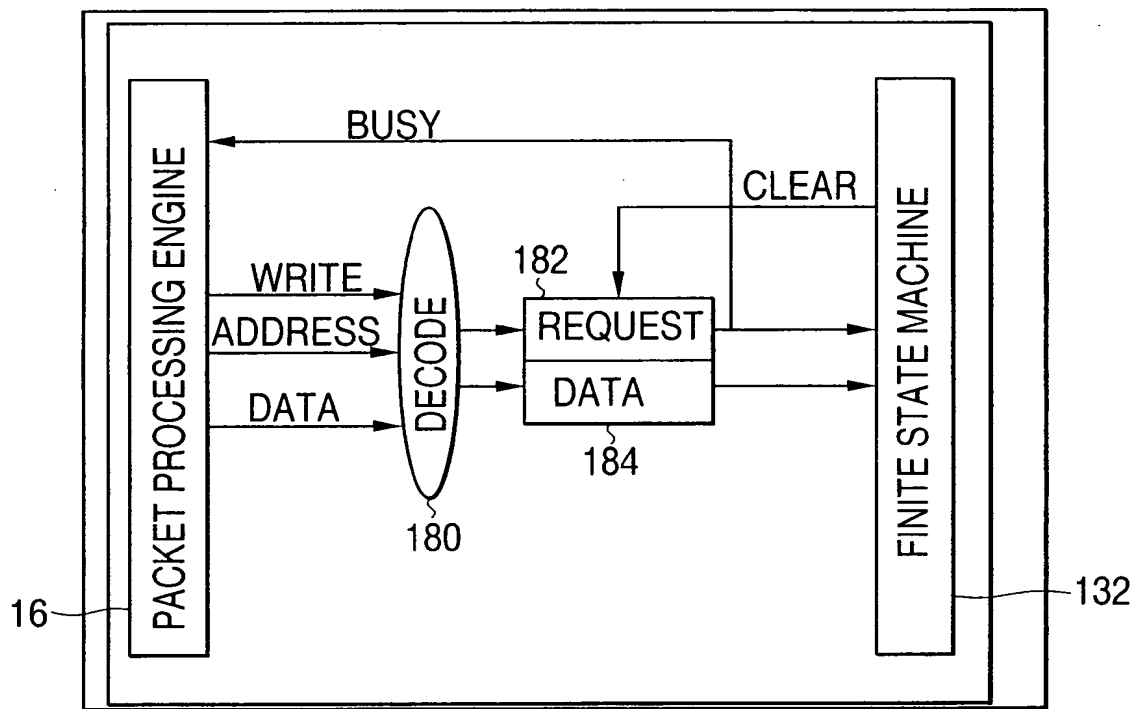


FIG. 14

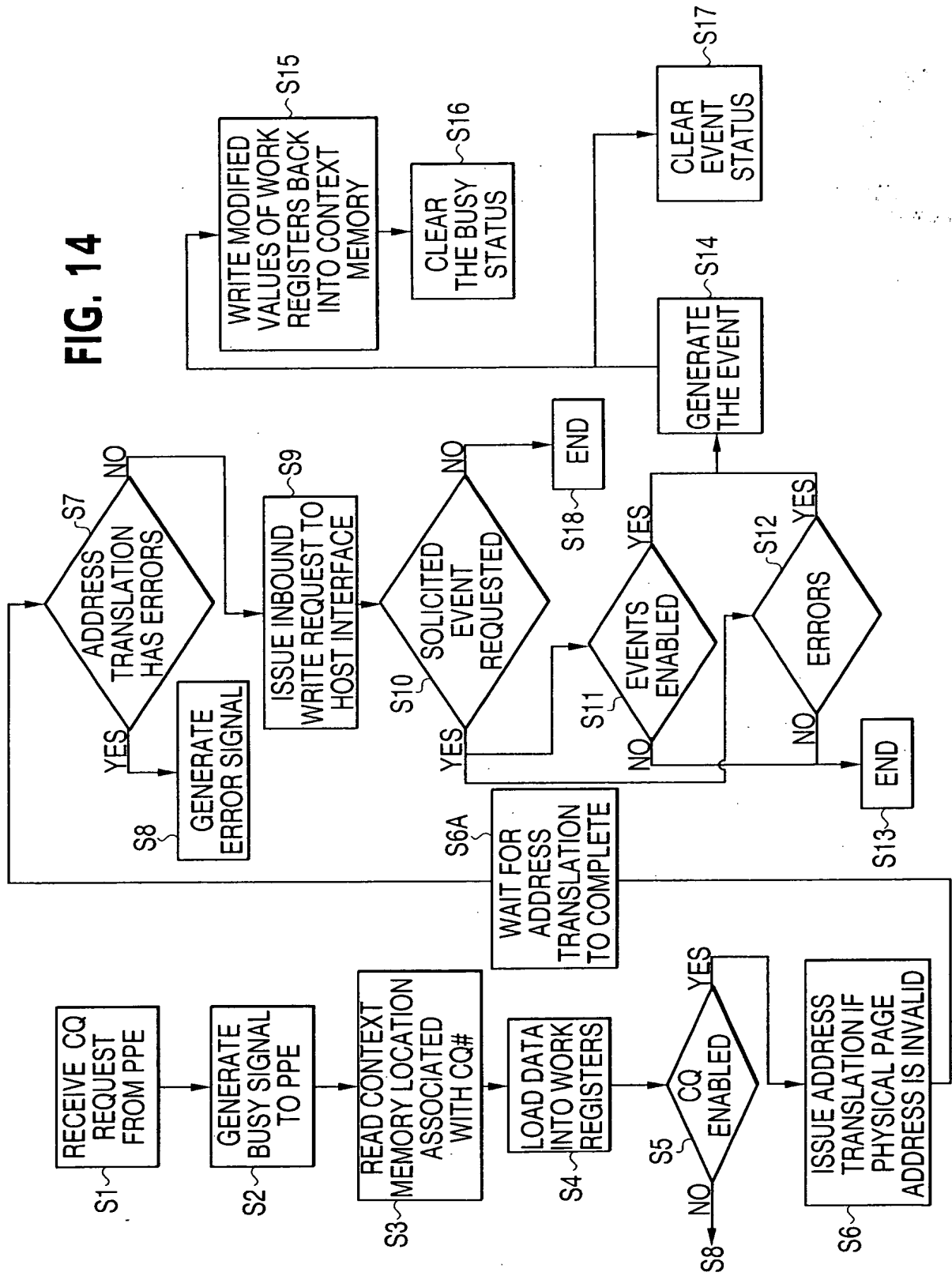


FIG. 15

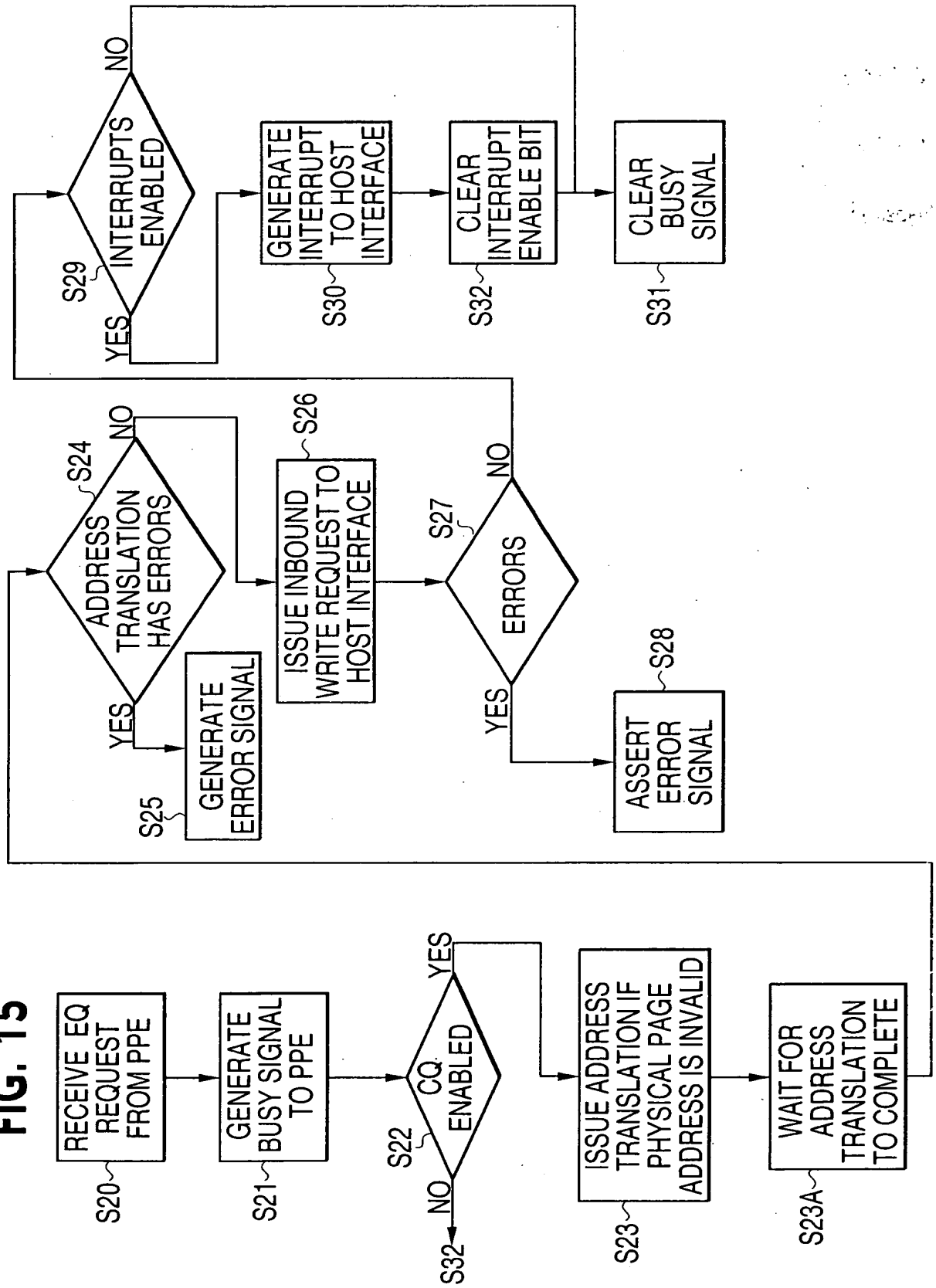


FIG. 16

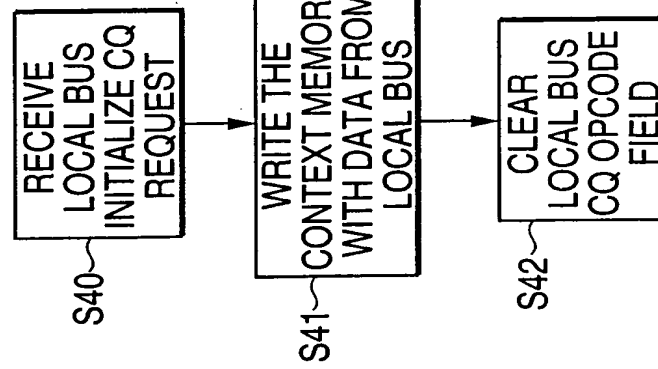


FIG. 17

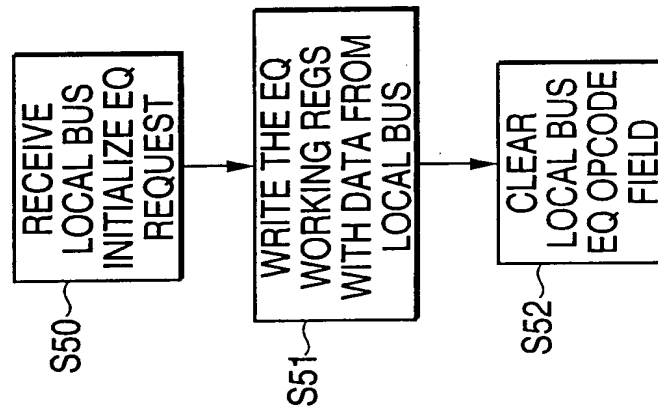


FIG. 18

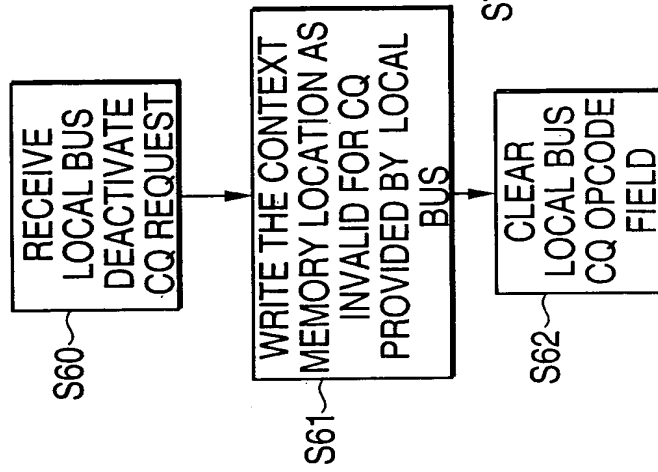


FIG. 19

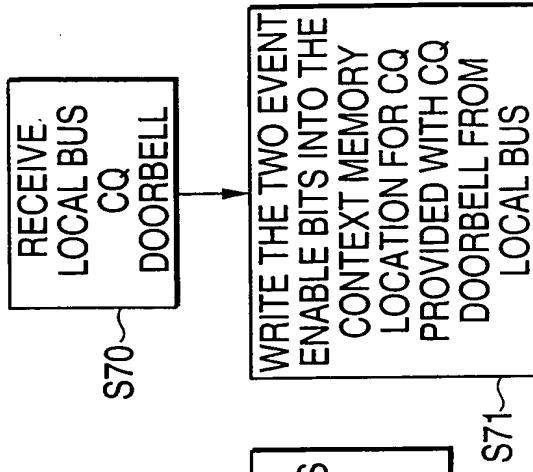


FIG. 20

